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10/516,538

12/02/2004

Bernard Teneze

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EXAMINER

DOBSON, DANIEL G

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

08/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/516,538

Applicant(s)

TENEZE ET AL.

Examiner

Daniel G. Dobson

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☒ Claim(s) 2 and 5-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 5 is objected to because of the following informalities: The VCSEL laser should be referred to as a Vertical Cavity Surface Emitting Laser. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1,3 and 4** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,880,467 B1 to Knapp. ("*Knapp*.")

As to **Claim 1**, *Knapp* discloses a method for producing an optical link (tracer rounds that emit laser radiation to a gunner, Col. 1 ll. 36-45) with laser pulses (laser diode output may be pulsed, Col. 3, ll. 17-8) between the emitter (laser diode emits in the near infra-red spectrum, Col. 3, ll. 36-7) of the said pulses and a receiver of the said pulses (Fig. 1, 18, receiver), the said optical link being used by a locating device (Fig. 1, 18, receiver) for locating a moving body (Fig. 1, 10, round) moving away from the said locating device, characterized in

that the start of emission of the said laser pulses is delayed with respect to the departure of the said moving body (a timer delays turning on the diode until a predetermined time after it leaves the gun, Col. 3, ll. 13-7) and in that the energy of the said successive laser pulses is varied as an increasing function of the time elapsing since the start of emission of the said laser pulses (the power of the beam increases as the time from firing increases, Col. 4, ll. 39-40.)

As to **Claim 3**, *Knapp* a device for producing an optical link (tracer rounds that emit laser radiation to a gunner, Col. 1 ll. 36-45) with laser pulses (laser diode output may be pulsed, Col. 3, ll. 17-8) between the emitter (laser diode emits in the near infra-red spectrum, Col. 3, ll. 36-7) of the said pulses and a receiver of the said pulses (Fig. 1, 18, receiver), the said optical link being used by a locating device (Fig. 1, 18, receiver) for locating a moving body (Fig. 1, 10, round) moving away from the said locating device, characterized in that it comprises means for delaying the start of emission of the said laser pulses with respect to the departure of the said moving body (a timer delays turning on the diode until a predetermined time after it leaves the gun, Col. 3, ll. 13-7; Fig. 3, 32) and means for varying the energy of the said successive pulses as an increasing function of the time elapsing since the start of emission of said laser pulses (electronics package, Fig. 4, 86; increases the power of the beam as the time from firing increases.)

As to **Claim 4**, *Knapp* further discloses that the said emitter comprises at least one laser diode (Fig. 4, 82, laser diode; Col. 4, l. 30.)

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 6,880,467 B1 to Knapp in view of U.S. Patent Application Publication

2002/0181055 A1 to Christiansen et al. ("*Christiansen*.")

As to **Claim 5**, *Knapp* discloses a device for producing an optical link as recited in Claim 3. *Knapp* does not expressly disclose that the emitter comprises at least one vertical cavity surface-emitting laser ("VCSEL.")

*Christiansen* discloses an optical wireless link (§ 3) where the transmitting device is a VCSEL (§48, last 5 lines.)

*Knapp* and *Christiansen* are from the same art with respect to optical links. Therefore they are analogous art.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a VCSEL as an emitter (as taught by *Christiansen*) in a system as disclosed by *Knapp*. The suggestion/motivation would have been to use a laser diode that has a narrow emission cone and less dependence on temperature (*Christiansen*, §48, last sentence.)

Art Unit: 2609

***Allowable Subject Matter***

6. **Claims 2, 6, and 7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

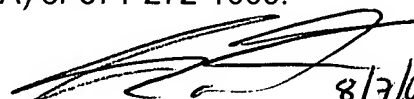
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel G. Dobson whose telephone number is (571) 272-9781. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris can be reached on (571) 272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*JD*

  
8/7/02

DERRICK W. FERRIS  
SUPERVISORY PATENT EXAMINER